UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,425	06/16/2008	Chul-Sik Yoon	1403-05	3776

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EXAMINER
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ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
Office Action Summary	10/581,425	YOON ET AL.	
	Examiner	Art Unit	
	CHAYCE BIBBEE	2617	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 May 2010</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>15-36</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>15-36</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 05/28/2010 have been fully considered but they are

not persuasive. With regards to the rejection of independent claims 15, 22, 25, and 30

under 35 U.S.C. 102(e) as being anticipated by Baum et al Applicant argues that Baum

fails to teach or suggest the claim limitations of "adding, to a map, information on the

number of unit resources corresponding to each of the plurality of bursts" and

"transmitting the map". Examiner respectfully disagrees as Baum in at least paragraphs

[0034]-[0038] as well as Fig. 5 discloses a mapping method of dividing a downlink frame

into a plurality of resource blocks and assigning a number of resource units N to each

block and then transmitting the frame to a mobile station, thus adding, to a map,

information on the number of unit resources corresponding to each of the plurality of

bursts. As to claim 22 and the limitation of "adding... a user identification" , Baum

teaches in at least paragraph [0047] teaches that information that is labeled with a

broadcast user ID can be placed in the most robust of the control channel resource

units, also it is well known in the art that if the base station is going to transmit to the

subscriber station it would have to include the id of the user station.

        Regarding the rejection of independent claim 34 under 102(e) as being

anticipated by Baum Applicant argues that Baum fails to teach or suggest "searching

information on a designated burst in a common control block; checking the number of

unit resources allocated to the designated burst from the information on the designated

burst; searching the designated burst according the number of unit resources to receive

the designated burst; and terminating the receiving operation when the designated burst

is received". Examiner respectfully disagrees as Baum in at least paragraph [0031] and

Fig. 4 discloses that each sector is assigned a resource block, thus a designated burst,

within the frame and then transmissions to the mobile units will occur only within a

particular resource block, up to a point where all N resource units have been utilized,

thus searching information on a designated burst, checking the number of unit

resources allocated, searching the designated burst, and terminating the transmission

after all the resource units have been utilized. Therefore the rejection of claims 15-36 is

maintained.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

3.   Claims 15-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Baum

et al (pub # 20040190482).

Consider claims 15 and 22. Baum et al teaches A method for allocating a radio resource

by a base station, comprising:

dividing the radio resource into a plurality of bursts, wherein the radio resource is

formed by a plurality of subchannels and a plurality of symbol intervals; **(See at least**

the abstract as well as Fig. 4 and paragraph [0029] where Baum discloses

dividing a downlink frame into a plurality of resource blocks. Also See Fig. 14

where subcarriers and symbol intervals are displayed).

adding, to a map, information on the number of unit resources corresponding to each of

the plurality of bursts; **(See at least paragraphs [0034]-[0038] as well as Fig. 5 where**

Baum discloses a mapping method of dividing a downlink frame into a plurality of

resource blocks and assigning a number of resource units N to each block and

then transmitting the frame to a mobile station, thus adding, to a map,

information on the number of unit resources corresponding to each of the

plurality of bursts).

and transmitting the map to a subscriber station. **(See at least paragraphs [0034]-**

[0038] as well as Fig. 5).

Consider claim 25. Baum et al teaches A frame for transmission from a base station to a

subscriber station, the frame comprising:

a plurality of bursts; **(See at least the abstract as well as Fig. 4 and paragraph [0029]**

where Baum discloses dividing a downlink frame into a plurality of resource

blocks. Also See Fig. 14 where subcarriers and symbol intervals are displayed).

and a map including information on the number of unit resources corresponding to each

of the plurality of bursts, wherein a position of each of the plurality of bursts is decided

through the number of unit resources in a radio resource that is formed by a plurality of

subchannels and a plurality of symbol intervals. **(See at least paragraphs [0034]-**

[0038] as well as Fig. 5 where Baum discloses a mapping method of dividing a

downlink frame into a plurality of resource blocks and assigning a number of

resource units N to each block and then transmitting the frame to a mobile

station, thus adding, to a map, information on the number of unit resources

corresponding to each of the plurality of bursts).

Consider claim 30. Baum et al teaches A method for transmitting a frame, comprising:

adding, to a map, information on the number of unit resources corresponding to each of

the plurality of bursts; **(See at least paragraphs [0034]-[0038] as well as Fig. 5 where**

Baum discloses a mapping method of dividing a downlink frame into a plurality of

resource blocks and assigning a number of resource units N to each block and

then transmitting the frame to a mobile station, thus adding, to a map,

information on the number of unit resources corresponding to each of the

plurality of bursts).

inserting the map to the frame; **(See at least paragraphs [0034]-[0038] as well as Fig.**

5).

and transmitting the frame to a subscriber station. **(See at least paragraphs [0034]-**

[0038] as well as Fig. 5).

Consider claim 34. A method for accessing a radio resource, by a subscriber station,
that is formed by a plurality of subchannels and a plurality of symbol intervals,
comprising:

searching information on a designated burst in a common control block; **(Baum in at
least paragraph [0031] and Fig. 4 discloses that each sector is assigned a
resource block, thus a designated burst, within the frame and then transmissions
to the mobile units will occur only within a particular resource block, up to a point
where all N resource units have been utilized, thus searching information on a
designated burst)**

checking the number of unit resources allocated to the designated burst from the
information on the designated burst; **(Baum in at least paragraph [0031] and Fig. 4
discloses that each sector is assigned a resource block, thus a designated burst,
within the frame and then transmissions to the mobile units will occur only within
a particular resource block, up to a point where all N resource units have been
utilized, thus checking the number of unit resources allocated, searching the
designated burst.)**

searching the designated burst according the number of unit resources to receive the
designated burst; **(Baum in at least paragraph [0031] and Fig. 4 discloses that each
sector is assigned a resource block, thus a designated burst, within the frame
and then transmissions to the mobile units will occur only within a particular
resource block, up to a point where all N resource units have been utilized, thus
searching the designated burst).**

and terminating the receiving operation when the designated burst is received. **(Baum in at least paragraph [0031] and Fig. 4 discloses that each sector is assigned a resource block, thus a designated burst, within the frame and then transmissions to the mobile units will occur only within a particular resource block, up to a point where all N resource units have been utilized, thus terminating the transmission after all the resource units have been utilized.)**

Consider claims 16 and 23. Baum et al teaches all of the recited limitations of claims 15 and 22. Baum further teaches wherein dividing the radio resource comprises:

deciding a default resource in the radio resource; **(See at least paragraph [0053] where Baum discloses that a default resource block is assigned).**

and dividing the default resource into the plurality of bursts. **(See at least paragraph [0030] as well as fig. 4 where Baum discloses each resource block divided into resource units).**

Consider claims 17, 24, 27, 32, and 35. Baum et al teaches all of the recited limitations of claim 16, 23, 26, 31, and 34. Baum further teaches wherein deciding the default resource comprises:

deciding the default resource through the number of subchannels. **(See at least paragraph [0053]).**

Consider claim 18. Baum et al teaches all of the recited limitations of claim 17. Baum further teaches adding, to the map, information on size of the default resource. **(See at least paragraph [0034] as well as Fig. 5).**

Consider claim 19. Baum et al teaches all of the recited limitations of claim 18. Baum further teaches

deciding a profile about the plurality of bursts; **(See at least paragraph [0037]).**

encoding and modulating the plurality of bursts according to the profile to generate a frame; **(See at least paragraph [0037]).**

and transmitting the frame including the map to the subscriber station. **(See at least paragraph [0037]).**

Consider claim 20. Baum et al teaches all of the recited limitations of claim 19. Baum further teaches wherein encoding and modulating the plurality of bursts comprises: arranging the plurality of bursts in time order according to robustness of the profile to generate the frame. **(See at least paragraph [0037]).**

Consider claim 21. Baum et al teaches all of the recited limitations of claim 20. Baum further teaches adding, to the map, an index of a start unit resource and an index of an end unit resource for each of the plurality of bursts. **(See at least paragraph [0038] as well as figures 4 and 5).**

Consider claims 26 and 31. Baum et al teaches all of the recited limitations of claims 25
and 30. Baum further teaches wherein the position of each of the plurality of bursts is
decided through the number of unit resources in a default resource of the radio
resource, and wherein the map further includes information on size of the default
resource. **(See at least paragraphs [0029] and [0030]).**

Consider claims 28 and 33. Baum et al teaches all of the recited limitations of claims 27
and 32. Baum further teaches wherein the map further includes information on a user
corresponding to each of the plurality of bursts and information on a profile of each of
the plurality of bursts. **(See at least paragraph [0037]).**

Consider claim 29. Baum et al teaches all of the recited limitations of claim 28. Baum
further teaches wherein the plurality of bursts are arranged in time order according to
robustness of the profile. **(See at least paragraph [0037]).**

Consider claim 36. Baum et al teaches all of the recited limitations of claim 35. Baum
further teaches The method of claim 35, further comprising:

checking information on a profile of the designated burst from the information on the

designated burst; and demodulating and decoding the designated burst according to the

profile. **(See at least paragraph [0037]).**

Conclusion

4.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to CHAYCE BIBBEE whose telephone number is

(571)270-7222. The examiner can normally be reached on Monday-Friday 7:30 a.m.-

5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, George Eng can be reached on 571-272-7495. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/   CHAYCE BIBBEE
Supervisory Patent Examiner, Art Unit 2617   Examiner
                                                                        Art Unit 2617